## INTERNATIONAL SEARCH REPORT

International Application No
PCT/IB2004/050454

A. CLASSIFICATION OF SUBJECT MATTER IPC 7 H04R1/10								
According to International Patent Classification (IPC) or to both national classification and IPC								
B. FIELDS SEARCHED								
Minimum documentation searched (classification system followed by classification symbols)  IPC 7 H04R								
Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched								
Electronic data base consulted during the international search (name of data base and, where practical, search terms used)								
EPO-In	ternal, WPI Data, PAJ	·						
C. DOCUMENTS CONSIDERED TO BE RELEVANT								
Category °	Citation of document, with indication, where appropriate, of the re	Relevant to claim No.						
Х	US 2001/046304 A1 (RAST RODGER H	1,3-9						
Υ	29 November 2001 (2001-11-29) paragraph '0055!; figure 1	2						
<b>x</b>	US 2003/012389 A1 (BRICE ROBERT 16 January 2003 (2003-01-16) paragraph '0038!; figure 3	J ET AL)	1,7-9					
Y	KR 2001 048 552 A (LG INF & COMM 15 June 2001 (2001-06-15) abstract	2						
Further documents are listed in the continuation of box C.  Patent family members are listed in annex.								
Special categories of cited documents:								
"A" document defining the general state of the art which is not considered to be of particular relevance  or priority date and not in conflict with the application but cited to understand the principle or theory underlying the invention								
"E" earlier document but published on or after the international filing date "X" document of particular relevance; the claimed investigation of the considered novel or cannot be consider								
which is clied to establish the publication date of another citation or other special reason (as specified)  "O" document referring to an oral disclosure, use, exhibition or "Y" document is combined with one or more other such docu—								
other	means  ent published prior to the international filing date but than the priority date claimed	ments, such combination being obvious to a person skilled in the art.  3. document member of the same patent family						
	e actual completion of the international search	·	Date of mailing of the international search report					
	29 July 2004	30/08/2004	30/08/2004					
Name and	mailing address of the ISA	Authorized officer						
European Patent Office, P.B. 5818 Patentlaan 2 NL – 2280 HV Rijswijk Tel. (+31-70) 340-2040, Tx. 31 651 epo nl, Fax: (+31-70) 340-3016		Fülöp, I						

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Patent document cited in search report		Publication date		Patent family member(s)	Publication date
US 2001046304	A1	29-11-2001	NONE		
US 2003012389	A1	16-01-2003	WO	03007491 A1	23-01-2003
KR 2001048552	Α	15-06-2001	NONE		